

(2) It has been shown that only a portion of the ultimate residual ionization in gases can be due to the collisions of thermal agitation.

(3) A formula has been devised for the number of collisions per c.c. per second producing ionization which is in qualitative agreement with experimental facts.

In conclusion the author wishes to express his thanks to Professor J. C. McLennan, who suggested the problem, and whose assistance and encouragement have been most valuable.

Physical Laboratory,
University of Toronto.
May 8, 1916.